

DETAILED ACTION

Response to Amendment

1. The Examiner acknowledges the amended claims filed on February 25, 2009. **Claims 5, 10, and 12** have been amended (As explained in the Interview Summary, **claims 5 and 9** had portions mistakenly deleted). **Claims 1-3, 7, and 14-17** have been cancelled.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William S. Frommer on March 9, 2009.

The application has been amended as follows:

Claim 5 (Currently Amended) An image pick-up device comprising:
image signal generation means for generating an image signal of a variable frame-rate picked-up image;
drive-and-control means for driving and controlling the image signal generation means;

setting information generation means for generating image pick-up setting information to generate an image signal which is frame-synchronized with the image signal generated by the image signal generation means;

output means for outputting the image signal generated by the image signal generation means and the image pick-up setting information; and

holding means for holding a frame rate alteration pattern,
wherein when reading the frame rate alteration pattern held in the holding means and instructing a frame rate in accordance with this read frame rate alteration pattern to vary a frame rate of the variable frame-rate picked-up image, the setting information generation means makes information indicating the read frame rate alteration pattern included in the image pick-up setting information; and

wherein the drive-and-control means drives and controls the image signal generation means, starting from a frame of the variable frame-rate picked-up image that is given first after the image pick-up setting information is output, by setting the instructed frame rate as a frame rate of the variable frame-rate picked-up image.

Claim 9 (Currently Amended) An image pick-up device comprising:

image signal generation means for generating an image signal of a variable frame-rate picked-up image; and

drive-and-control means for receiving image pick-up setting information to generate an image signal that is frame-synchronized with the image signal of a reference variable frame-rate picked-up image, and controlling a driving operation of the image signal generation means based on this image pick-up setting information, thereby

frame-synchronizing the image signal generated by the image signal generation means with the image signal of the reference variable frame-rate picked-up image.

wherein, if the image pick-up setting information contains information of a scan line position and a pixel position, the drive-and-control means synchronizes an image signal generated by the image signal generation means with the scan line position and the pixel position.

Claim 10 (Currently Amended) An image pick-up device comprising:

image signal generation means for generating an image signal of a variable frame-rate picked-up image;

drive-and-control means for receiving image pick-up setting information to generate an image signal that is frame-synchronized with the image signal of a reference variable frame-rate picked-up image, and controlling a driving operation of the image signal generation means based on this image pick-up setting information, thereby frame-synchronizing the image signal generated by the image signal generation means with the image signal of the reference variable frame-rate picked-up image; and

holding means for holding a frame rate alteration pattern,

wherein, if the image pick-up setting information includes information which is used to read the frame rate alteration pattern, the holding means reads the frame rate alteration pattern indicated by this information and instructs a frame rate in accordance with this read frame rate alteration pattern; and

wherein the drive-and-control means drives the image signal generation means, starting from a frame of the variable frame-rate picked-up image that is given first after

the image pick-up setting information is input, by setting the frame rate instructed by the holding means as a frame rate of the variable frame-rate picked-up image.

Allowable Subject Matter

3. **Claims 4-6 and 8-13** are allowed.
4. The following is a statement of reasons for the indication of allowable subject matter:
5. A claim limitation will be presumed to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis:
 - (A) the claim limitations must use the phrase "means for" or "step for";
 - (B) the "means for" or "step for" must be modified by functional language; and
 - (C) the phrase "means for" or "step for" must not be modified by sufficient structure, material, or acts for achieving the specified function.

In light of the limitations presented by independent **claims 4-6 and 8-13** examined under the 35 U.S.C. 112 sixth paragraph standards.

6. **Regarding claim 4 (Renumbered as 1)**, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, that the setting information generation means makes information of a scan line position and a pixel position of an image signal included in the image pick-up setting, said information being generated by the image signal generation means information.

7. **Regarding claim 5 (Renumbered as 2)**, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, holding means for holding a frame rate alteration pattern, wherein when reading the frame rate alteration pattern held in the holding means and instructing a frame rate in accordance with this read frame rate alteration pattern to vary a frame rate of the variable frame-rate picked-up image, the setting information generation means makes information indicating the read frame rate alteration pattern included in the image pick-up setting information; and wherein the drive-and-control means drives and controls the image signal generation means, starting from a frame of the variable frame-rate picked-up image that is given first after the image pick-up setting information is output, by setting the instructed frame rate as a frame rate of the variable frame-rate picked-up image.

8. **Regarding claim 6 (Renumbered as 3)**, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, a plurality of frame rate instruction means each for instructing a frame rate of the variable frame-rate picked-up image; and operation control means for setting priority sequence to the plurality of frame rate instruction means, to set a frame rate instructed by the frame rate instruction means that has the highest priority as a frame rate of the variable frame-rate picked-up image, wherein the setting information generation means generates image pick-up setting information which is used to generate an image signal that is frame-synchronized with an image signal having the set frame rate of the variable frame-rate picked-up image.

9. **Regarding claim 8 (Renumbered as 4),** the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, that if the image pick-up setting information contains frame rate information indicating a frame rate of the reference variable frame-rate picked-up image, the drive-and-control means drives the image signal generation means, starting from a frame of the variable frame-rate picked-up image that is given first after this image pick-up setting information is input, by setting a frame rate indicated by the frame rate information contained in the input image pick-up setting information as a frame rate of the variable frame-rate picked-up image.

10. **Regarding claim 9 (Renumbered as 5),** the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, that if the image pick-up setting information contains information of a scan line position and a pixel position, the drive-and-control means synchronizes an image signal generated by the image signal generation means with the scan line position and the pixel position.

11. **Regarding claim 10 (Renumbered as 6),** the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, holding means for holding a frame rate alteration pattern, wherein, if the image pick-up setting information includes information which is used to read the frame rate alteration pattern, the holding means reads the frame rate alteration pattern indicated by this information and instructs a frame rate in

accordance with this read frame rate alteration pattern; and wherein the drive-and-control means drives the image signal generation means, starting from a frame of the variable frame-rate picked-up image that is given first after the image pick-up setting information is input, by setting the frame rate instructed by the holding means as a frame rate of the variable frame-rate picked-up image.

12. **Regarding claim 11 (Renumbered as 7),** the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest, including all the elements of the present claim, frame rate instruction means for instructing a frame rate of the variable frame-rate picked-up image; and operation control means for setting priority sequence to the frame rate instructed by the frame rate instruction means and the frame rate based on the image pick-up setting information, to set the frame rate that has higher priority as the frame rate of the variable frame-rate picked-up image, wherein the drive-and-control means drives the image signal generation means by using the frame rate of the variable frame-rate picked-up image as the frame rate that is set by the operation control means.

13. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernández Hernández whose telephone number is (571) 272-7311. The examiner can normally be reached on 9:00 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571) 272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Lin Ye/
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NDHH
March 10, 2009